



Channel Islands National Marine Sanctuary Sanctuary Superintendent's Report



May 2014

A report for the Sanctuary Advisory Council

ABOUT THIS REPORT

The Sanctuary Superintendent's Report highlights recent accomplishments and activities from program areas at the Channel Islands National Marine Sanctuary (CINMS or sanctuary). This report is also available online at channelislands.noaa.gov.

Launch of Voluntary Vessel Speed Reduction Incentive Trial in Santa Barbara Channel

Staff from Channel Islands National Marine Sanctuary (CINMS), the Office of National Marine Sanctuaries Media Liaison and the Santa Barbara Air Pollution Control District (SBAPCD) met with shipping industry representatives to roll-out an incentive-based voluntary vessel speed reduction (VSR) trial in the Santa Barbara Channel in 2014. The purpose of the VSR trial is to determine the industry's willingness to participate in a non-regulatory VSR approach to reduce air pollution and the impact of ship strikes on endangered whales. The SBAPCD is interested in VSR because Santa Barbara County is not meeting state ozone standards and is close to the federal ozone standard. Marine shipping is a main contributor to nitrogen oxide (NO_x) emissions, a precursor to ozone, and dominates the County planning inventory. The National Oceanic and Atmospheric Administration (NOAA) became acutely aware of ship strikes on endangered whales in this region in 2007 when there were several fatal ship strikes on blue whales. Lowering ship speeds is an effective way to reduce ship emissions and has the potential to reduce the impact and risk of ship strikes on whales. The CINMS sanctuary advisory council has previously advised CINMS to explore emulating the successful VSR ports

programs. The ports of Los Angeles and Long Beach have provided financial incentives for vessels to slow down to 12 knots starting at 20 nautical miles from outside the ports since 2001, and more recently extended to 40 nautical miles. By slowing down, vessels save fuel and decrease air pollution emissions. This program is very successful and has a reported compliance rate of 90%.

ABOUT THE SANCTUARY

Designated in 1980, the Channel Islands National Marine Sanctuary consists of an area off the coast of California of approximately 1,470 square miles adjacent to the following islands and offshore rocks: San Miguel Island, Santa Rosa Island, Santa Cruz Island, Anacapa Island, Santa Barbara Island, Richardson Rock, and Castle Rock, extending seaward to a distance of approximately six nautical miles. The islands vary in distance from 12 to 40 nautical miles offshore from Santa Barbara and Ventura counties in southern California. A fertile combination of warm and cool currents in this area results in a great variety of plants and animals including kelp forests, fish, invertebrates, marine mammals and sea birds. The sanctuary also contains a wealth of maritime heritage resources including Chumash Native American artifacts and over 100 historic shipwrecks. Human uses in the area include commercial and recreational fishing, marine wildlife viewing, boating, diving, kayaking, Chumash maritime and cultural practices, maritime shipping, nearby offshore oil and gas development, research and monitoring, and numerous educational activities. Sanctuary staff coordinate research, monitoring, education, outreach, emergency response, and community involvement programs, as well as the enforcement of regulations, to promote long term resource protection and compatible human use within the CINMS.

CINMS Staff Encounter Group of Humpback Whales During Staff Training Event

Staff from Channel Islands National Marine Sanctuary were en route to Santa Cruz Island when they encountered a group of three humpback whales (*Megaptera novaeangliae*). The whales circled the vessel for approximately one hour while they spyhopped, slapped their flukes on the water's surface and came within a few feet of the hull. Video of the encounter can be found on the CINMS Facebook page.

CINMS Staff Receive 8-Hour HAZWOPER Training

On April 10, 2014, eleven Channel Islands National Marine Sanctuary staff took an 8-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training at Clean Seas in Carpinteria, California. The course focused on safety issues for oil spill response personnel, including: oil spill response, OSHA Hazwoper requirements, site characterization, site-specific safety and health plans, physical and chemical hazards, the hazard communication standard, decontamination procedures and the Incident Command System. The course meets basic post-emergency response requirements as well as fulfilling annual refresher training.

EDUCATION, OUTREACH, AND VOLUNTEERS

CINMS Sea Grant Fellows Attend Sea Grant Extension Workshops

California Sea Grant Fellows from the Channel Islands National Marine Sanctuary (CINMS), Sean Herron and Ryan Freedman, attended the Sea Grant Extension Workshops in Sacramento, CA from March 24-26. The meeting brought together fellows, employees and scientists from 12 agencies as well as California Sea Grant Extension scientists to discuss possible collaborations and solutions to pressing environmental issues along the California coastline. Workshop topics covered Ocean Energy and Marine Space Use, Fisheries, Aquaculture and Sustainability, Water Quality and Sediment Management, and Climate Change Adaptation. Both fellows contributed to the meeting by identifying resource protection needs of CINMS, discussing ways CINMS could further support ongoing research efforts, and how to foster new relationships with agencies that could benefit from partnerships with the sanctuary. In addition, other meeting attendees provided insight and advice to ongoing projects at CINMS. Attendance to the workshop was made possible by funds from California Sea Grant.

Channel Islands National Marine Sanctuary staff and partners participate in NOAA sponsored Climate Change Interpreters Training

From March 31 to April 4, 2014 Julie Bursek, Team Lead for Education and Outreach at Channel Islands National Marine Sanctuary (CINMS), and Rocío Lozano-Knowlton, Director of the MERITO (Multicultural Education for Resource Issues Threatening Oceans) Program, were trained and certified as Climate Interpreter Guides during the NOAA-funded Building Ocean Awareness Together (BOAT) project at Aquarium of the Pacific in Long Beach, California. Twenty-five participants from various organizations, including NOAA, also took part. BOAT is utilizing the interpretive training and certification program offered through the National Association for Interpretation (NAI) to prepare trainers and interpreters in three regions of the country to apply their skills specifically to interpreting climate change and energy literacy.

MERITO Academy Update

On March 21, 2014 Rocío Lozano-Knowlton presented to the Sanctuary Advisory Council on the status of and plans for the Multicultural Education for Resource Issues Threatening Oceans (MERITO) Academy, an ongoing marine science education and conservation program for grade levels 4-12. MERITO's methods include curriculum development, professional training, in-class presentations, student projects, field

experiences, and internships for college students. The program receives support from many partnering entities, providing sponsorship of student transportation, assistance with field trips, and more. There are 37 in-class and 13 in-field hands-on science based activities that are adapted to the Santa Barbara Channel biogeographic region. Students learn about watershed connections to the ocean and monitoring coastal techniques while exploring the coast and Channel Islands. To date, the MERITO program has taken close to 5,000 students to the Channel Islands in the last 7 years. Rocio explained to the advisory council that the MERITO Foundation has been formed to help guide the program forward and hopefully to assist with additional fundraising and grant support. Council members were invited to assist with upcoming MERITO Academy field trips.

MERITO Academy Awarded \$50,000 Grant from California Coastal Conservancy to be Administered by National Marine Sanctuary Foundation

On April 10, the National Marine Sanctuary Foundation (NMSF) received a \$50,000 grant to support the Multicultural Education for Resource Issues Threatening Oceans (MERITO) Academy program at Channel Islands. The California Coastal Conservancy awarded the funds for the project titled “Coastal Exploration and Discovery for Multicultural Youth (MERITO Academy 2013-2014)”. The project will be conducted in partnership with a number of institutions: NOAA Channel Islands National Marine Sanctuary (CINMS); the National Marine Sanctuary Foundation; the MERITO Foundation; California State University Channel Islands (CSUCI); Jean-Michel Cousteau’s Ocean Futures Society; twelve public schools; the Boys & Girls Club of Oxnard; and many supporting organizations including Coal Oil Point Reserve in Santa Barbara, the City of Oxnard, the Santa Barbara City Creeks Division, the Environmental Defense Center and others. The main goal of the project is to provide high quality educational coastal experiences to underserved students of Title 1 schools in Ventura and Santa Barbara counties, supported by in-class earth and ocean science education, resulting in the active contribution to ocean protection by educated and engaged youth. As coordinated by the MERITO Foundation, 22 participating educators are providing instruction on the MERITO curriculum in their classrooms, and partnering organizations are facilitating 2-3 meaningful coastal experiences for each of the 700 participating students. Through this project, students are being exposed to an array of STEM (Science, Technology, Engineering and Math) careers in marine or environmental professional fields. This grant is specifically supporting the bus transportation of students, a portion of MERITO Foundation staff time, an external project evaluation, and the fabrication of interpretative signs to be designed by students as end-of-year projects.

Meeting held in Santa Barbara with Whale Watching Operators to Promote Best Viewing Practices

On May 2, Channel Islands National Marine Sanctuary's CA Sea Grant Fellow Sean Herron participated in a meeting with whale watching companies, National Marine Fisheries Service, American Cetacean Society, and Cascadia Research to discuss the rapid expansion of summer whale watching boats in Southern California and how to ensure best viewing practices. There was support for a whale watching association similar to the Pacific Northwest, but the operators wanted to learn more before making any decisions. Other key points included the value of communication among boat captains, possibly implementing a 500 yards/5 knot voluntary guideline for areas around whales, improving communication between researchers and whale watching operators, and creating an informational video to educate private boaters on best viewing practices. John Calambokidis from Cascadia Research plans to incorporate feedback from these operators and have a second meeting in Orange County to share these ideas with other whale watching operators.

RESEARCH, MONITORING AND VESSEL OPERATIONS

Dr. Jenn Caselle presents on Monitoring of Channel Islands Marine Protected Areas to Sanctuary Advisory Council

On March 21, 2014 Dr. Jenn Caselle, a research biologist with the Marine Science Institute at UC Santa Barbara and lead researcher at PISCO (Partnerships for Interdisciplinary Studies of Coastal Oceans), presented on monitoring efforts in Channel Islands Marine Protected Areas to the Sanctuary Advisory Council. Her work evaluates MPAs to determine effectiveness, refining designs and adaptive management, and learn how marine ecosystems are affected by human alteration. PISCO deploys random SCUBA-based transects in survey areas to count species throughout the water column. Her work monitoring the 10-year old Channel Islands MPAs has found that, on average, fish biomass is greater in reserves for species that are fished and there is no statistical difference for non-fished species inside and outside of reserves. The difference in biomass between inside and outside reserves for fished species is also increasing over time. For invertebrates, Dr. Caselle has found densities to be much higher inside reserves. Her future plans are to investigate roles of environment, recruitment, and fishing pressure on temporal pattern changes in addition to assessing changes in community structure.

CINMS Welcomes Andrew Brinkman as a COAST Intern

This summer Andrew Brinkman, an undergraduate at California State University Channel Islands, will be joining the research team at Channel Islands National Marine Sanctuary (CINMS) as an intern through the California State University (CSU) COAST (Council on Ocean Affairs, Science and Technology) program. The COAST program was established to integrate CSU resources and promote interdisciplinary multi-campus collaborations to advance our knowledge of California's natural coastal and marine resources and the processes that affect them. One of the ways this is done is by offering internship opportunities to undergraduate and graduate students with a number of state and federal agencies. CINMS is proud to partner with the CSU system and COAST to support the training of future researchers. Andrew will be heavily involved in the West Coast Observations project and maintaining fish telemetry equipment to support research efforts to monitor the movements of large elasmobranchs (sharks) and highly migratory species. His internship will expose him to a mix of field work, data management, ocean policy and science coordination. Andrew will begin his eleven week internship on May 19th and we look forward to having him.

Channel Islands National Marine Sanctuary (CINMS) collaborates with University of California Santa Barbara (UCSB), Santa Barbara Air Pollution Control District and Scripps Institution of Oceanography on Automated Identification System (AIS) for Ship Tracking

On May 1st 2014, Channel Islands National Marine Sanctuary staff hosted a meeting for 10 participants from UCSB's Marine Science Institute, Santa Barbara Air Pollution Control District and the Scripps Institution of Oceanography to collaborate on the use of Automated Identification System (AIS) for ship tracking. It was a good opportunity for our various entities to better understand the breadth of AIS stations, hardware and software gaps, respective in house data analysis capacity, expand partnerships and target AIS data-sharing. AIS data facilitates real time tracking of University and agency vessels, and provides air quality control managers and CINMS the ability to determine the shipping industry willingness to slow down in the Santa Barbara Channel reduce air pollution and conserve endangered whales. CINMS hosted the meeting in the Ocean Science Education Building conference room and participated in the meeting as a new on-campus outreach partner.

RESOURCE PROTECTION

Large Fishing Net Being Removed from Channel Islands National Marine Sanctuary and Park

On March 23, 2014 expert divers working with the non-profit organization Ocean Defenders Alliance began work to remove a large lost fishing net near West Anacapa Island within waters of the Channel Islands National Marine Sanctuary (CINMS) and Channel Islands National Park. Working from GPS coordinates provided by staff from Channel Islands National Park, 600 pounds of net was safely removed from a depth of 70 feet. However, there is more to be done and continuing operations are scheduled for March 30th. This is the second season that Ocean Defenders Alliance has been conducting marine debris removal activities within the sanctuary, operating with a salvage permit from CINMS. Ocean Defenders Alliance works to clean and protect marine ecosystems through documentation, education, and meaningful action, focusing primarily on the reduction and removal of man-made debris that threatens ocean wildlife and habitats. Together with multiple years of work performed within the sanctuary by the SeaDoc Society's California Lost Fishing Gear Recovery Project, ODA is helping to reduce debris levels within the sanctuary.

Calla Allison presents on Santa Barbara Channel Marine Protected Area Collaborative

On March 21, 2014 Calla Allison, director of community partnerships for the state of California's MPA Collaborative Implementation Project, presented to the Sanctuary Advisory Council on the recently formed Santa Barbara Channel Marine Protected Area Collaborative. She discussed how the State has acknowledged that a network of community-based partnerships is needed to provide a localized, comprehensive approach to MPA management by bringing together local experts and authorities. Participants include agencies with jurisdictional authority, tribes, landowners, community groups, environmental groups, aquaria, academic institutions, fishing associations, marine businesses, and ocean user groups. Participants can use the collaborative as a way to work on site-specific projects with local partners, a forum to communicate to state agencies about issues, and a way to receive information on statewide efforts in monitoring, enforcement, and outreach. The collaboratives are roughly based on county lines, and have biannual regional meetings and an annual statewide meeting. The Santa Barbara Channel had one of the first collaborative groups and was one of three pilot areas. This collaborative helps connect Channel Islands MPAs with the newly established mainland MPAs along the coasts of Santa Barbara and Ventura counties. In the future, the MPA Collaborative Implementation Project wants to figure out how to more effectively share information and the larger MPA story to the public and stakeholders.

CINMS CA Sea Grant Fellow Presents on Spotter Pro App at Southern California Academy of Sciences

On May 3, Channel Islands National Marine Sanctuary's CA Sea Grant Fellow Sean Herron gave a presentation titled *SpotterPro: A Citizen Science And Technology Tool To Support Marine Mammal Observations Off The Coast Of California* at the Southern California Academy of Sciences in Camarillo, CA. The iOS application allows the crowd sourcing of information on whale distribution, primarily by utilizing whale watching operators to collect data that is then uploaded online and made available to CINMS staff. The data from the SpotterPro app enhances our understanding on the distribution of whales within sanctuaries, involves the public by promoting citizen science, and helps inform management decisions that rely on an understanding of whale distribution.

Sanctuary Staff

Chris Mobley – *Superintendent*

Shauna Bingham – *Volunteer Program & Outreach Coordinator*

Julie Bursek – *Team Leader for Education and Outreach, Acting Research Coordinator*

Nicole Corpuz – *Intern*

LTJG Lyndsey Davis – *Operations Officer*

Laura Francis – *Education Coordinator*

Ryan Freedman – *California Sea Grant Fellow, 2014*

Darrell Gregg – *Intern*

Sean Hastings – *Resource Protection Coordinator*

Sean Herron – *California Sea Grant Fellow, 2014*

Todd Jacobs – *Deputy Superintendent for Administration and Operations*

Charles Lara – *Vessel Captain*

Rocío Lozano de Knowlton – *MERITO Program Coordinator*

Michael Murray – *Deputy Superintendent for Programs*

Robert Schwemmer – *Regional Maritime Heritage Coordinator*

Terrence Shinn – *Vessel Captain*

Ben Waltenberger – *Physical Scientist*

Rebecca Young – *Program Support Specialist*

ONMS West Coast Region Staff

William Douros – *Regional Director*

Lisa Wooninck – *Policy Coordinator*

Nicole Capps – *Management Support Specialist*

Dave Lott – *Operations Coordinator*

Local ONMS Staff

Claire Fackler – *West Coast Education Liaison*

Sarah Marquis – *West Coast Media Coordinator*

Matt Pickett – *ONMS Aviation Coordinator*

Amy Cale-Huebner – *Exhibit Designer & Kiosk Developer*

Learn More About Your Sanctuary

The CINMS produces the Sanctuary Superintendent's Report in conjunction with every other bi-monthly Sanctuary Advisory Council meeting. To learn more about the sanctuary please visit our web site at: <http://channelislands.noaa.gov>.

To learn more about the Sanctuary Advisory Council please visit: <http://channelislands.noaa.gov/sac/main.html>.

Office of National Marine Sanctuaries (ONMS)

The National Marine Sanctuary System consists of 14 marine protected areas that encompass more than 163,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys, and from Lake Huron to American Samoa. The system includes 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument. The ONMS, which manages the system, was established under the National Marine Sanctuaries Act of 1972. Visit the ONMS web site at: <http://sanctuaries.noaa.gov/>.

Channel Islands National Park

To learn about Channel Islands National Park visit their web site at: <http://www.nps.gov/chis/homepage.htm>.

Get involved and stay informed!

To learn how to get involved in the sanctuary visit: <http://channelislands.noaa.gov/focus/involved.html>

Sign up for the CINMS listserv to receive email notices about upcoming sanctuary events, and public meetings of the Sanctuary Advisory Council and its working groups: <http://channelislands.noaa.gov/focus/list.html>

- Contact Information -

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